

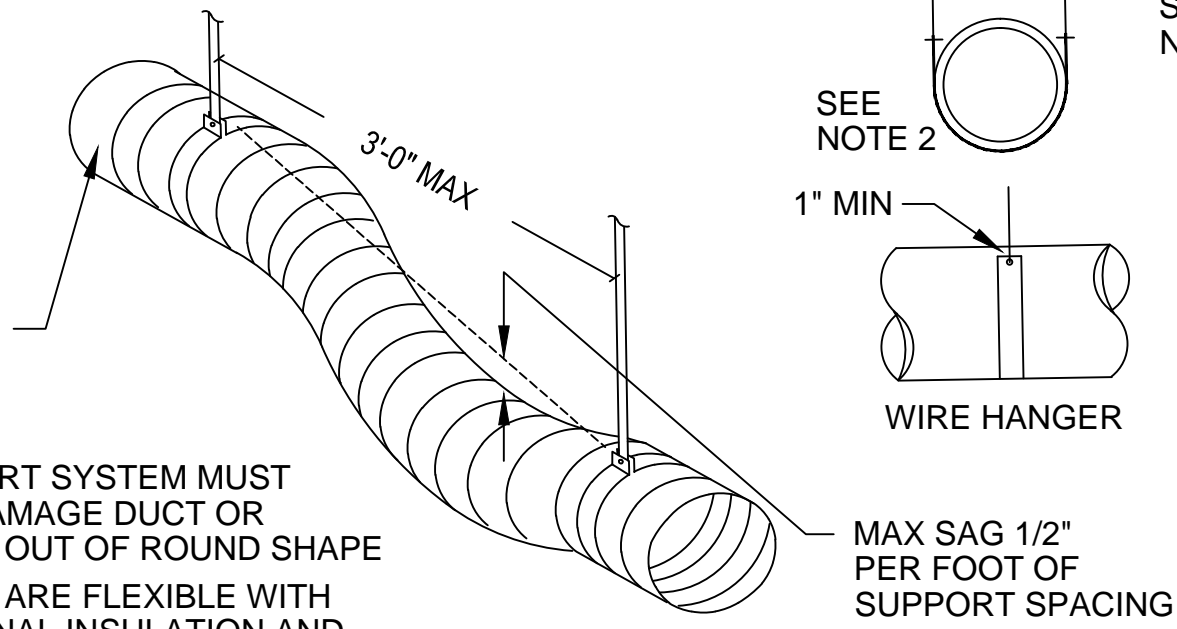
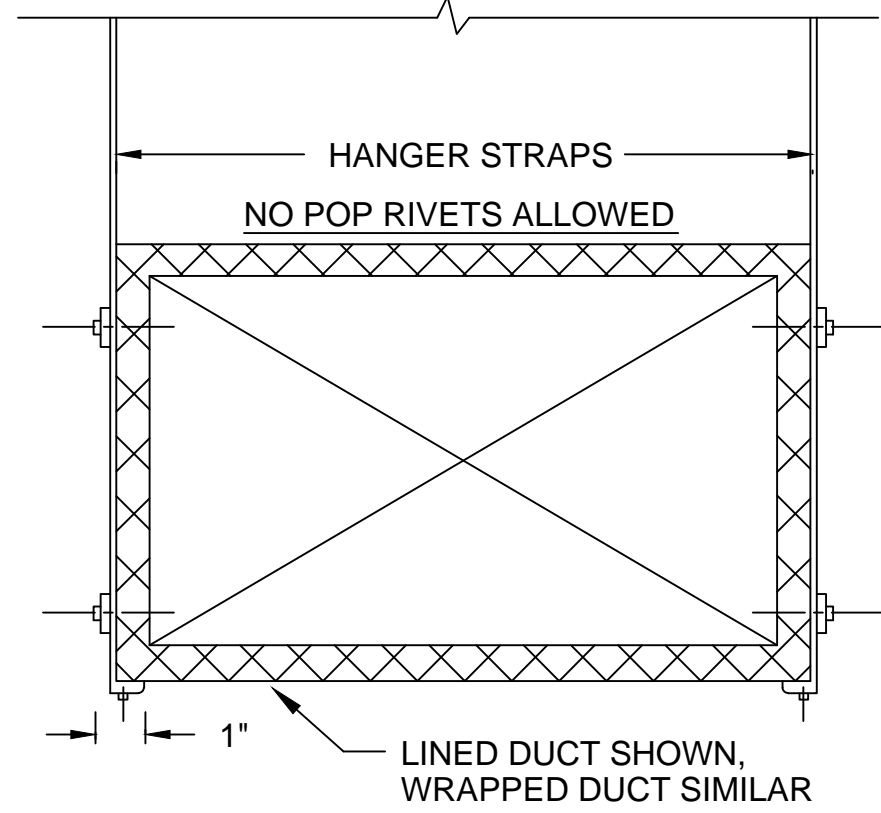
NO. 10x3/4" SELF TAPPING CADMIUM PLATED SHEET METAL SCREWS TO ANCHOR STRAPS TO DUCT AND JOISTS. ALL STRAPS SHALL BE TIGHT AGAINST DUCT AND MEMBERS.

HANGER SIZES FOR RECTANGULAR DUCT

MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
UP TO 34"	1" X 18 GAUGE STRAP	NONE REQUIRED	8'-0"
34" TO 40"	1" X 18 GAUGE STRAP	NONE REQUIRED	6'-0"

1 DUCT STRAP HANGER DETAIL

SCALE: NTS

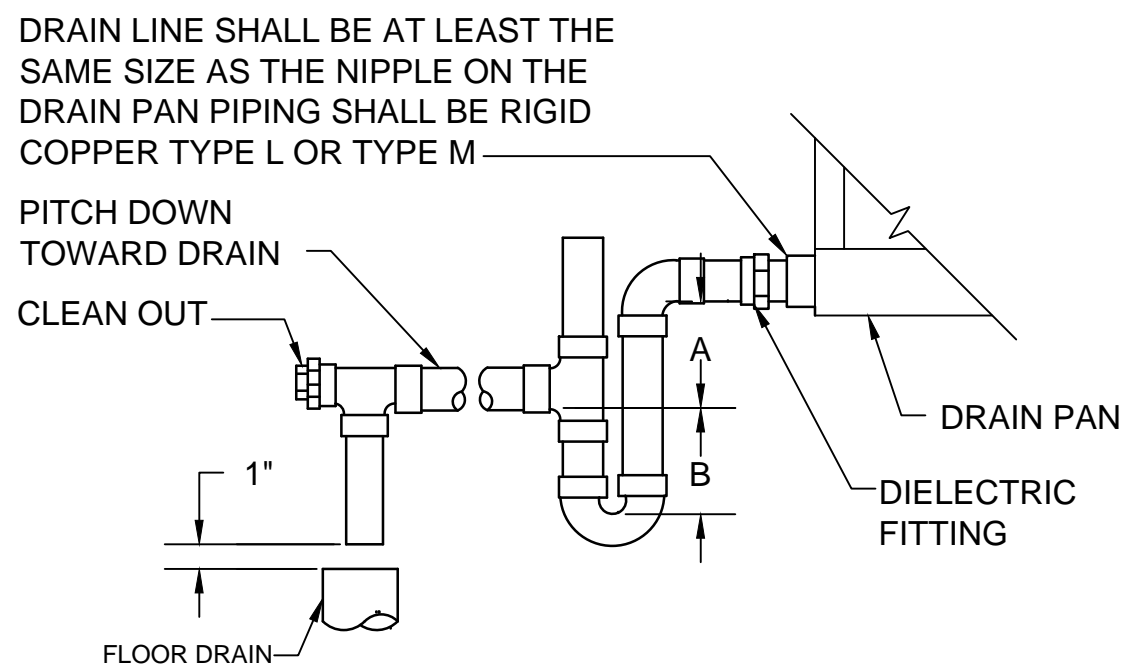


NOTES:

- SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE
- DUCTS ARE FLEXIBLE WITH EXTERNAL INSULATION AND VAPOR BARRIER JACKETING
- MIN CENTER LINE BEND RADIUS IS ONE DIA. (OR INSIDE RADIUS OF D/2)
- MAX. LENGTH 3 FT BETWEEN SUPPORTS.

2 STRAIGHT SECTION FLEXIBLE DUCT (TYPICAL)

SCALE: NTS

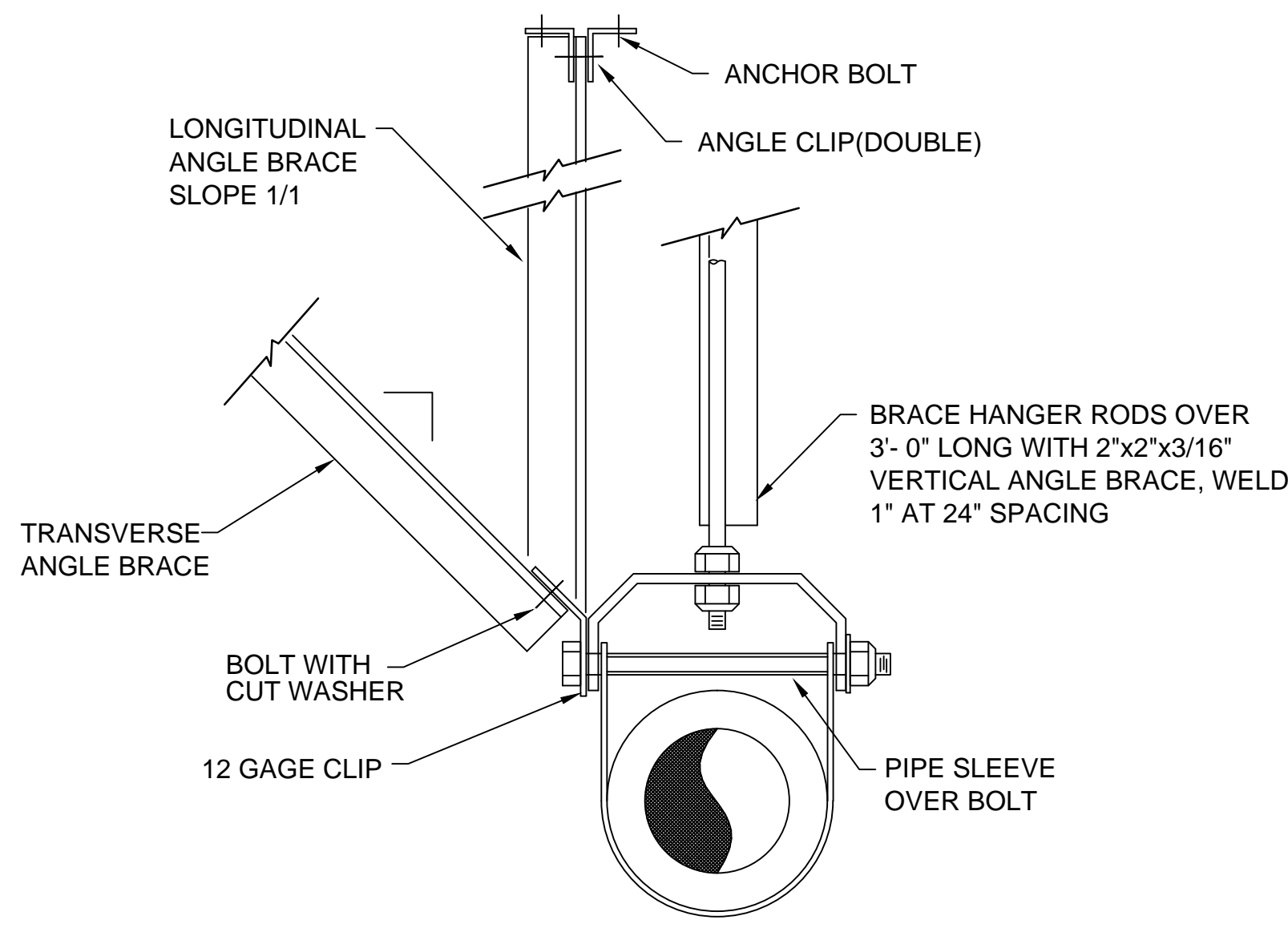


AIR HANDLING UNIT COND. DRAIN TRAP DETAIL

SCALE: NTS

UNIT TYPE	A	B
DRAW THRU	2" [50mm] PLUS X	X
BLOW THRU	1" [25mm] MINIMUM	2X

WHERE X = STATIC PRESSURE IN PAN



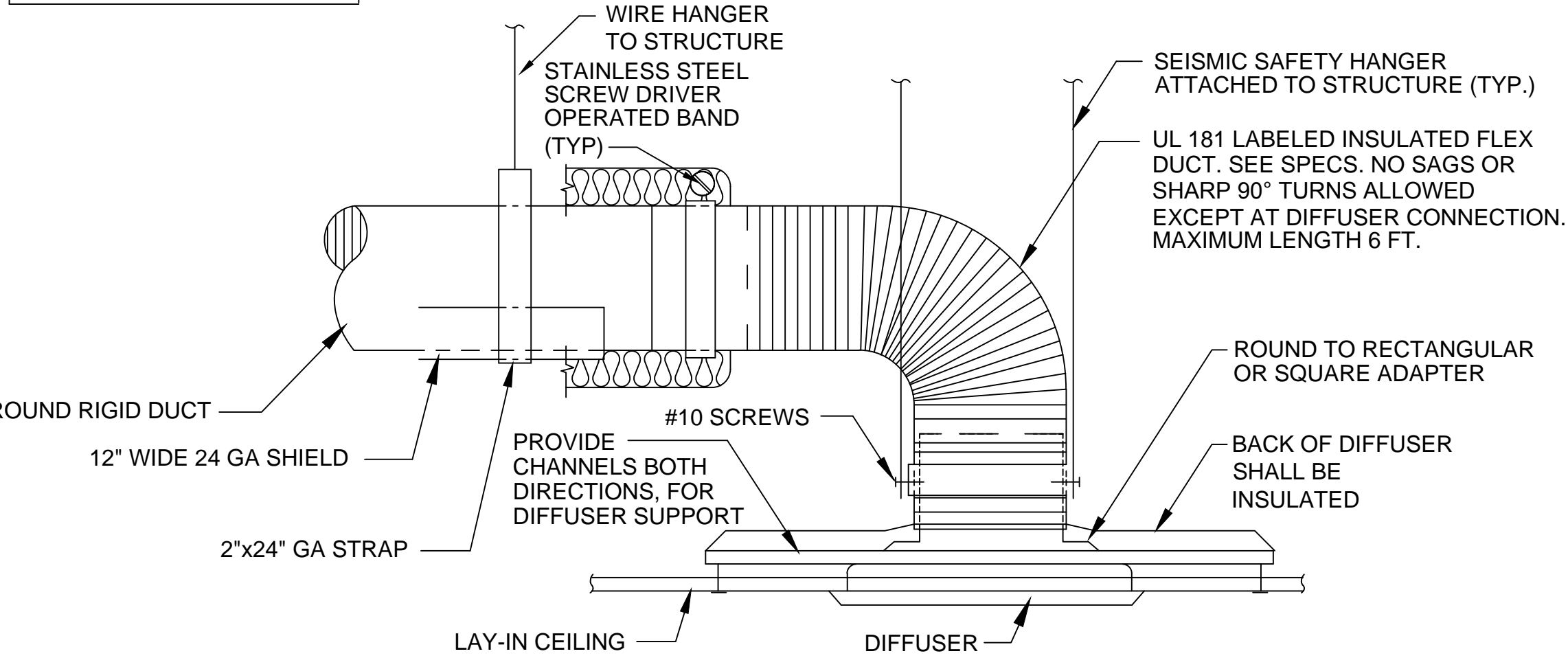
3 TYPICAL SEISMIC BRACING

SCALE: NTS

PIPE SIZE	*ANGLE BRACE ANGLE	BOLT TO ANGLE	CLIP OR INSERT	ANCHOR BOLT
2-1/2"	2"x2" 16GA	3/8"	3"x3"x1/4"	3/8"
3" & 4"	2-1/2"x2-1/2" 16GA	3/8"	3"x3"x1/4"	1/2"
5" & 6"	2-1/2"x2-1/2" 16GA	1/2"	5"x3"x1/2"	3/4"

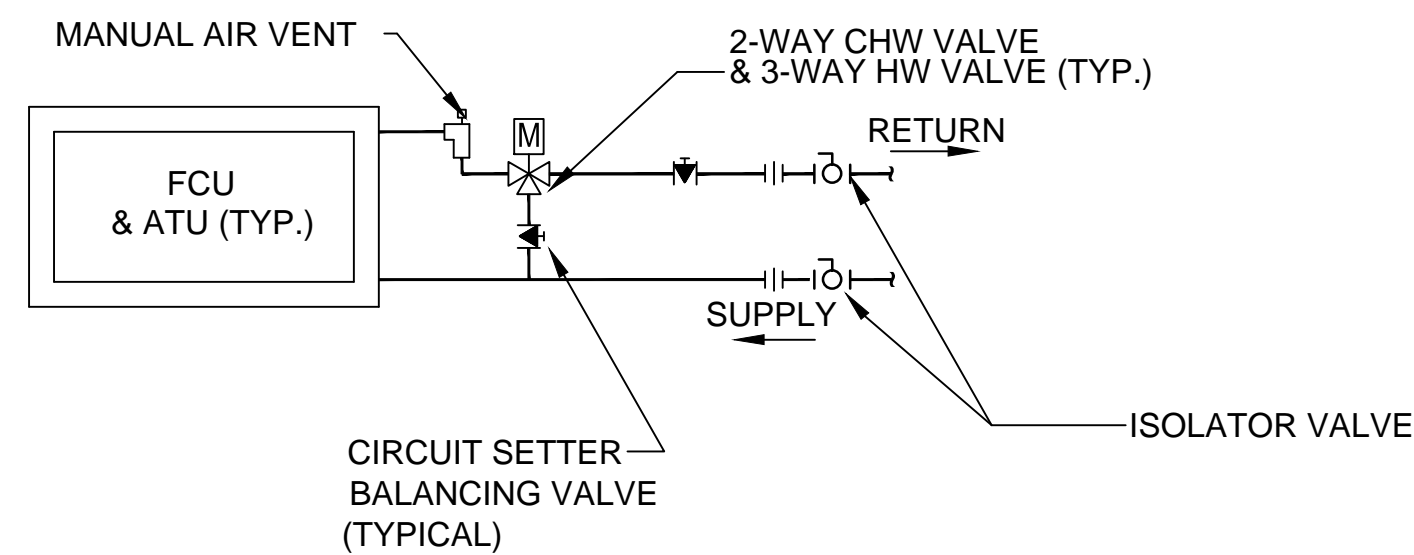
*1-5/8"x 1-5/8" GAGE CHANNEL MAY BE USED
GA = GAUGE

NOTE: PROVIDE SUPPORT ON ALL BRANCH DUCT RUNOUTS. MINIMUM OF TWO SUPPORTS ON BRANCH DUCTS OVER 6'-0" IN LENGTH.



5 DIFFUSER CONNECTION

SCALE: NTS

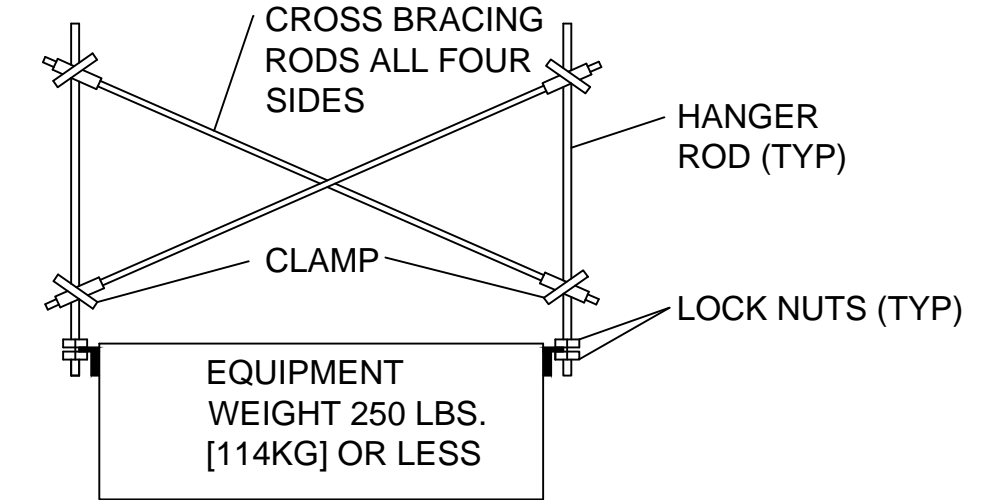


4 TYPICAL HYDRONIC PIPING AT FAN COIL UNIT & AIR TERMINAL UNIT

SCALE: NTS

NOTES

- USE DIELECTRIC UNIONS WHERE PIPING AND APPENDAGE MATERIAL DIFFER.
- BALANCE SYSTEM AT COOLING FLOW RATES WITH THROUGH COILS. THEN BALANCE BYPASS FLOWS TO MATCH FLOW THROUGH ADJACENT COIL.
- SIZE CIRCUIT SETTER FOR REQUIRED FLOW. PROVIDE REDUCERS AS REQUIRED.
- INSTALL CONTROL VALVES IN ACCESSIBLE CEILING LOCATIONS.
- PROVIDE TAMPER PROOF CEILING ACCESS PANELS FOR PATIENT ROOMS.
- FAN COIL UNITS SHALL BE PROVIDED WITH FACTORY CONTROL VALVE PACKAGES (2-WAY CHW & 3-WAY HW).
- ATU REHEAT COILS SHALL BE PROVIDED WITH A 3-WAY HW VALVE.

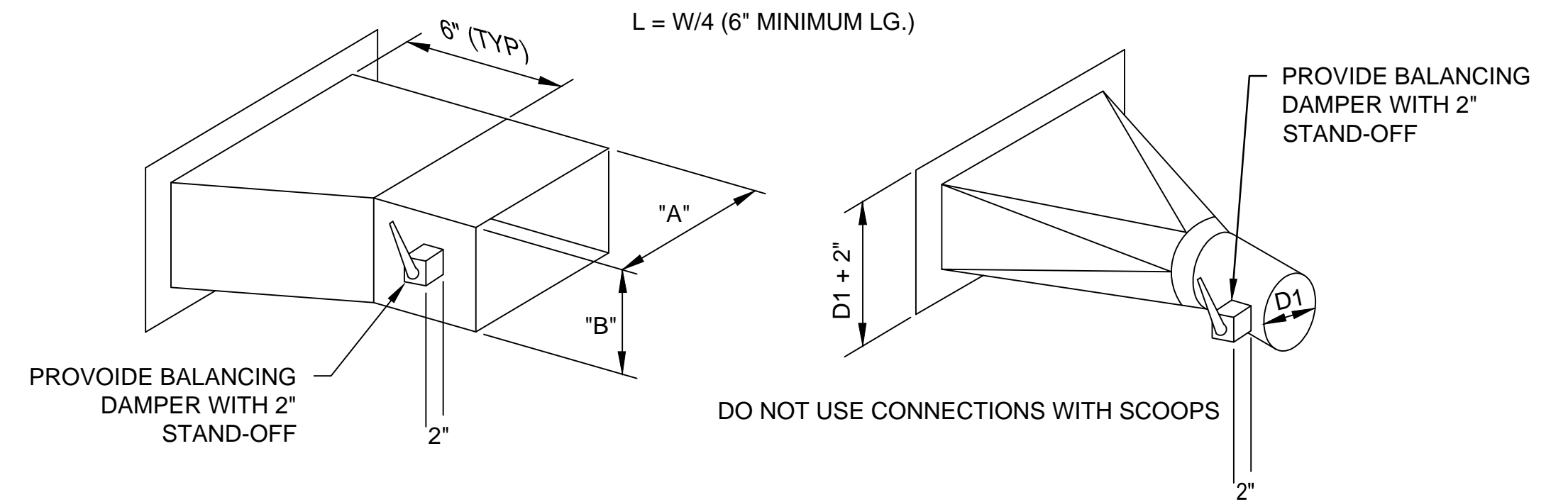


SEISMIC BRACING FOR LIGHT SUSPENDED EQUIPMENT

NOTE: NOT REQUIRED FOR AIR TERMINAL UNITS.

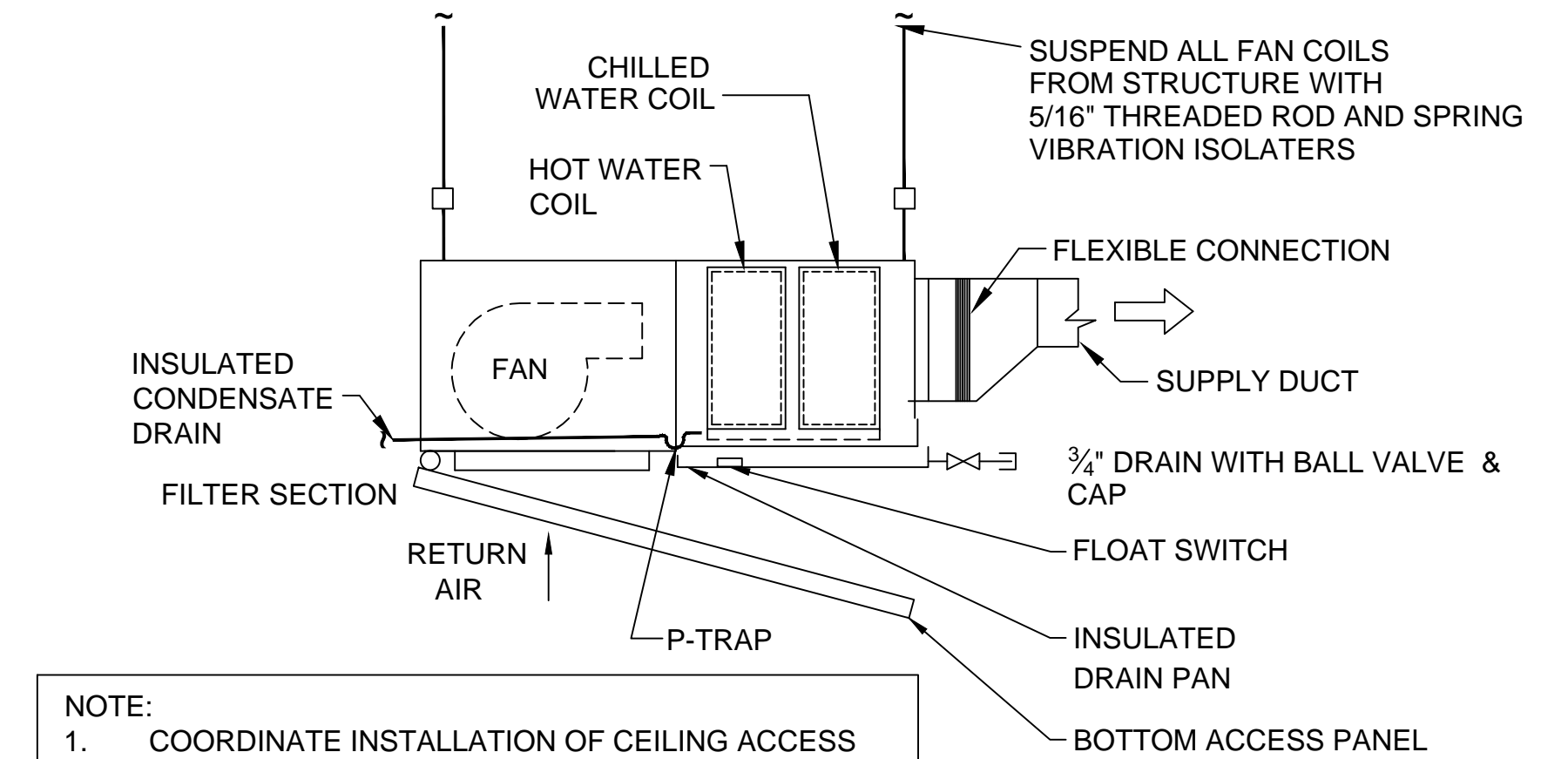
6 SEISMIC BRACING FOR EQUIPMENT

SCALE: NTS



7 45 DEGREE BRANCH TAKEOFF LOW PRESSURE DUCTWORK

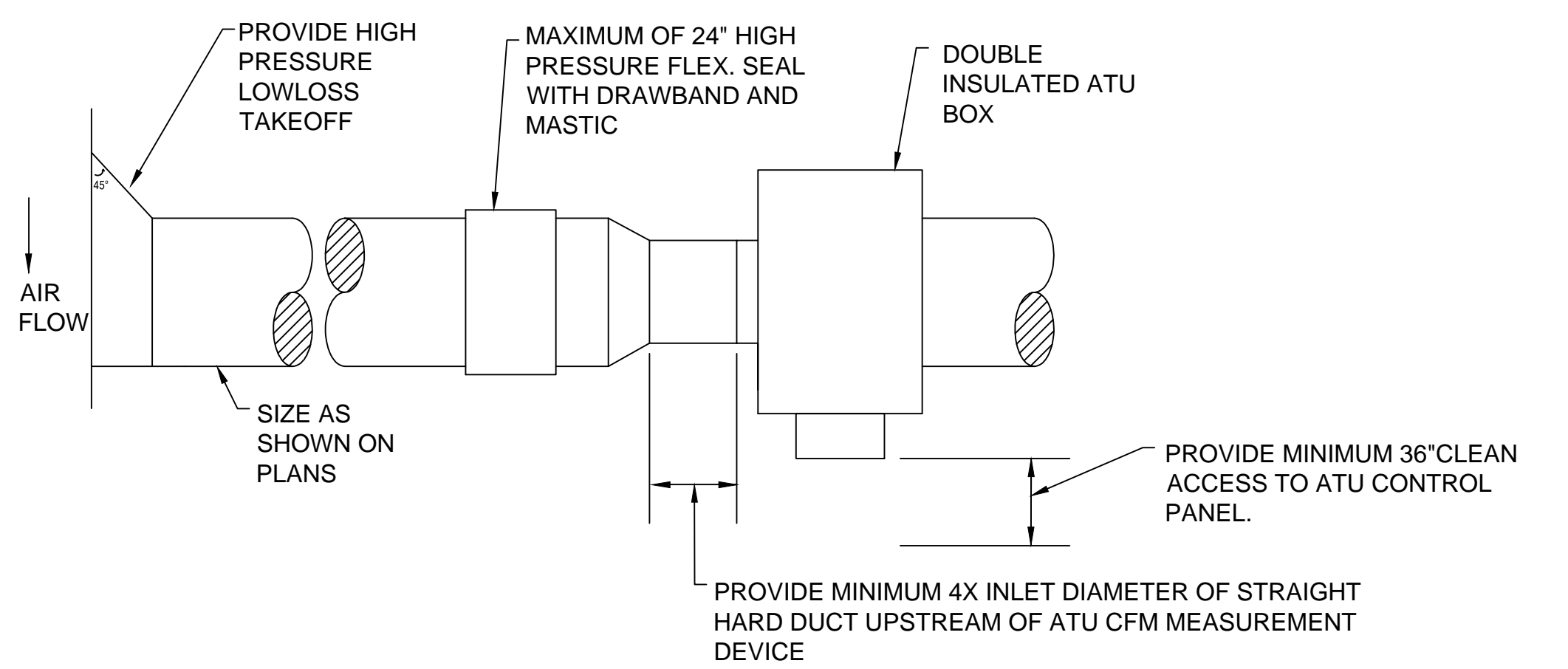
SCALE: NTS



NOTE:
1. COORDINATE INSTALLATION OF CEILING ACCESS PANEL TO ALLOW EASY ACCESS TO FACTORY HOT WATER AND CHILLED WATER COIL CONTROL VALVE PACKAGES.

8 FAN COIL UNIT - ABOVE CEILING

SCALE: NTS



9 AIR TERMINAL UNIT

SCALE: NTS

CONSTRUCTION DOCUMENT SUBMISSION FULLY SPRINKLERED

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title MECHANICAL DETAILS		Project Title RENOVATE MEDICAL SURGICAL UNIT		Project Number 544-13-102		OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT Department of Veterans Affairs	
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